

5

WHAT IS CLAIMED IS:

10

1. A coating formulation, comprising:  
a silicone polymer, and  
a second polymer that is interdispersed within said silicone polymer, wherein said second polymer has a cohesion parameter that is between about  $13 \text{ MPa}^{1/2}$  and about  $19 \text{ MPa}^{1/2}$ .
2. The coating formulation as recited in claim 1, wherein said silicone polymer is a two-part silicone polymer that is capable of being crosslinked by a catalyst.
3. The coating formulation as recited in claim 2, wherein said catalyst is selected from the group consisting of platinum, palladium, cumyl peroxide, acyl peroxide, and benzoylperoxide.
4. The coating formulation as recited in claim 2, wherein said silicone polymer and said second polymer form a semi-IPN when blended and processed with said catalyst.

5. The coating formulation as recited in claim 1, wherein said second polymer is selected from the group consisting of polytetrafluoroethylene, polyethylene, polybutadiene, natural rubber, ethylene-methyl acrylate, ethylene-vinyl acetate, EPDM, butyl 400, neoprene, butadiene/styrene 96/4, butadiene/styrene 87.5/12/5, butadiene/styrene 71.5/28.5, butadiene/acrylonitrile 82/18, acrylonitrile-butadiene elastomer, alcohol soluble resin, alkyd short oil, cellulose acetate, coumarone-indene resin, isoprene elastomer, cellulose nitrate, petroleum hydrocarbon resin, polyamide, *cis*-polybutadiene elastomer, poly(isobutylene), poly(ethylmethacrylate), poly(vinyl butyral), poly(vinyl chloride), styrene-butadiene, terpene resin, isobutylene-isoprene rubber, nitrile-butadiene rubber, polychloroprene, vinylidene fluoride-hexafluoropropylene copolymer, polysulfide, ethylene propylene copolymer, chloro-sulfonyl polyethylene, acrylate-acrylic acid, polyether urethane, ethylene oxide-epichlorohydrin copolymer, long oil alkyd resin.

6. The coating formulation as recited in claim 1, further comprising  $\gamma$ -isocyanatopropyl-trimethoxysilane.

7. The coating formulation as recited in claim 1, further comprising methacryloxypropyltrimethoxysilane.

8. The coating formulation as recited in claim 1, further comprising tetraoctyl titanate.

9. The coating formation as recited in claim 1, further comprising commercial yellow pigment.

10. An airbag, comprising:

a fabric substrate coated with a coating composition comprising (i) a silicone polymer having a first cohesion parameter, wherein said silicone polymer is capable of being crosslinked by at least one catalyst, and (ii) a second polymer that is interdispersed within said silicone polymer, wherein said second polymer has a second cohesion parameter, wherein the absolute difference between said first and second cohesion parameters is no more than about  $3 \text{ MPa}^{1/2}$ .

11. The airbag as recited in claim 10, wherein said catalyst is selected from the group consisting of platinum, palladium, cumyl peroxide, acyl peroxide, and benzoyl peroxide.

12. The airbag as recited in claim 10, wherein said fabric substrate is woven.

13. The airbag as recited in claim 12, wherein said fabric substrate is a one-piece Jacquard woven cushion.

14. The airbag as recited in claim 13, wherein said one-piece Jacquard woven cushion is formed from nylon fibers.

15. The airbag as recited in claim 10, wherein said fabric substrate is knitted.

16. The airbag as recited in claim 10 wherein said fabric substrate is non-woven.

17. The airbag as recited in claim 10 wherein said fabric substrate is formed from the group consisting of natural fibers, synthetic fibers, and inorganic fibers.

18. The airbag as recited in claim 10, wherein said second polymer is selected from the group consisting of polytetrafluoroethylene, polyethylene, polybutadiene, natural rubber, ethylene-methyl acrylate, ethylene-vinyl acetate, EPDM, butyl 400, neoprene, butadiene/styrene 96/4, butadiene/styrene 87.5/12/5, butadiene/styrene 71.5/28.5, butadiene/acrylonitrile 82/18, acrylonitrile-butadiene elastomer, alcohol soluble resin, alkyd short oil, cellulose acetate, coumarone-indene resin, isoprene elastomer, cellulose nitrate, petroleum hydrocarbon resin, polyamide, *cis*-polybutadiene elastomer, poly(isobutylene), poly(ethylmethacrylate), poly(vinyl butyral), poly(vinyl chloride), styrene-butadiene, terpene resin, isobutylene-isoprene rubber, nitrile-butadiene rubber, polychloroprene, vinylidene fluoride-hexafluoropropylene copolymer, polysulfide, ethylene propylene copolymer, chloro-sulfonyl polyethylene, acrylate-acrylic acid, polyether urethane, ethylene oxide-epichlorohydrin copolymer, long oil alkyd resin.

5

19. The airbag as recited in claim 10, wherein said coating composition further comprises  $\gamma$ -isocyanatopropyl-trimethoxysilane.

10

20. The airbag as recited in claim 10, wherein said coating composition further comprises methacryloxypropyltrimethoxysilane.